

IN THE CLAIMS

Amend the Claims as follow:

Claim 1. (Currently once amended) A device for vaporization injection of samples into a gas chromatography analysis instrument, comprising an elongated and constantly heated vaporization chamber, as well as a syringe equipped with a needle, the device being configured to render vaporization of the sample liquid within the needle negligible, and further containing means for stopping of the type in which the sample introduction is carried out without prior vaporization of said sample within the needle, and being further foreseen at least a stop and vaporizing the sample vaporization liquid above a column entrance, characterized in that a the distance between an exit the free end of the needle and the means for stopping stop and vaporizing vaporization means for the sample liquid above the column entrance is greater than 55 mm.

Applicant states on
page 7 that conventional
chambers have lengths
from which
is more than
55

Claim 2. (Original) A device according to claim 1, characterized in that said distance is greater than 80 mm.

Claim 3. (Original) A device according to claim 1, characterized in that said needle extends into the vaporization chamber for length less than 30 mm.

Claim 4. (Previously amended) A device according to claim 1, characterized in that the internal channel of said needle has a diameter of less than 0.13 mm.

Claim 5. (Previously amended) A device according to claim 1, in which the upper portion of said vaporization chamber is cooled or unheated.

Claim 6. (Previously amended) A device according to claim 1, in which the external wall of said needle is covered by a thermal insulating material.

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gmt

Claim 7. (Previously amended) A device according to claim 1, in which said

needle is completely formed in a thermal insulating polymer.

Claim 8. (Previously amended) A device according to claim 1, in which the

complete length of said vaporization chamber is greater than 10 cm.

Claim 9. (Original) A device according to claim 8, in which the complete

length of said vaporization chamber is greater than 15 cm.

Claim 10. (Previously amended) A device according to claim 1, in which said

vaporization chamber is coiled.

Claim 11. (Previously amended) A device according to claim 1, in which said

vaporization chamber is formed in metal.

Claim 12. (Currently once amended) A device according to claim 11, in

which the stated vaporization chamber is formed in "silcosteel".

Claim 13. (Previously amended) A device according to claim 1, in which a

conventional septum or a Merlin valve are able to be alternately mounted on the injector

head.

Claim 14. (Previously amended) A device according to claim 1, characterized

in that said vaporization chamber has a restriction in its lower part containing said stop

and vaporization means.

Claim 15. (Original) A device according to claim 14, characterized in that said

restriction is connected to the upper part of the chamber by a funneled wall.

Claim 16. (Previously amended) A device according to claim 1, characterized

in that heating means for the vaporization chamber are provided operating at the

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vaporization temperature of the sample in correspondence to said restriction, and at a lower temperature in the upper part of the chamber.

Claim 17. (Currently once amended) A vaporization method for a sample injected via a syringe with a needle into a constantly heated vaporization chamber of a gas chromatography analysis instrument, characterized in that said sample is injected in ~~correspondence or in proximity of~~ an upper portion of said vaporization chamber, and is released in form of a band crossing said vaporization chamber at a high speed, and that said liquid band is stopped by stop means and said sample is vaporized in a lower portion of the heated chamber lower portion.

Claim 18. (Original) A method according to claim 17, in which said needle is inserted into said chamber for a length not greater than 30 mm and in such a way that the distance between the point of said needle and said liquid stop means is greater than 55 mm.

Claim 19. (Newly submitted) A device according to claim 1, in which heating means for the vaporization chamber are provided so as to achieve a maximum heating effect to vaporize all the sample towards the base of the chamber, and a lower temperature in the upper part of the chamber.

Claim 20. (Newly submitted) A method according to claim 17, in which the lower portion of the chamber is heated to achieve the maximum heating effect to vaporize all the sample, and the ~~upper~~^{portion} of the chamber is heated to a lower temperature. *P 5 of specification says it is not heated on the upper portion.*